



15:18

BAYER MATERIAL SCIENCE AG

+49 214 30 71617 5.02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Formatvorlagendefinition:  
Briefkopf: Schriftartfarbe:  
Automatisch, Englisch  
(Australien)

Applicant : Thomas Eckel et al.  
Serial No. : 10/027,870  
Filed : October 26, 2001  
For : Impact-Modified Polycarbonate  
Compositions  
Art Unit : 1712  
Examiner : D.J. Buttner

---

## DECLARATION

I, Thomas Eckel, residing at Pfauenstr. 51, 41540 Dormagen, Germany, declare as follows:

- 1) That I have the following technical education and experience:
  - a) I am a chemist having studied at the Phillips-Universität of Marburg, Germany, from 1978 to 1987,
  - b) I received the degree of doctor rer. nat. at the Phillips-Universität of Marburg in 1987,
  - c) I have been employed by Bayer AG since July 1987 in the Research Department especially handling polymer blends;
- 2) That I have read and understood the Office Action dated April 7, 2005 that issued in the prosecution of the captioned Patent Application.
- 3) That the following tests in support of the captioned Patent Application were

Le A 34 668 - US

page 1 of 4

carried out under my immediate supervision and control:

Two molding compositions (designated below as C9 and 9) have been prepared and compared. As noted below the compositions that were identical one to the other in terms of their resinous components differed only in that composition 9 included, and composition C9 did not include, glass fibers.

The components used in preparing the compositions are described as follows:

- A: Linear polycarbonate based on bisphenol A.
- B: Styrene / acrylonitrile copolymer
- C.1: graft copolymer of methyl methacrylate on butyl acrylate dimethyl siloxane copolymer; Metablen® S 2001 a product of Mitsubishi Rayon Co. Ltd.
- D.1: Glass fibers.

Pentaerythritol tetra-stearate and phosphite stabilizer, that are conventional additives having no criticality in the context of the comparison.

The components were mixed and test specimens produced on an Arburg 270 E injection molding machine at 260°C.

The properties of the molding compositions are shown in the Table below:

Table

Examples	C 9	9
Components (parts by weight)		
polycarbonate	68	68
styrene acrylonitrile	26	26
siloxane graft copolymer	6	6
glass fibers	-	11
PETS	0,5	0,5
phosphite stabilizer	0,1	0,1
Shear viscosity, [Pa*s], ISO 11443, at 240°C		
at 100 s <sup>-1</sup>	1063	1101
at 1000 s <sup>-1</sup>	282	300
at 1500 s <sup>-1</sup>	218	230
Shear viscosity, [Pa*s], ISO 11443, at 260°C		
at 100 s <sup>-1</sup>	500	642
at 1000 s <sup>-1</sup>	189	202
at 1500 s <sup>-1</sup>	150	167

The results clearly show that the shear viscosity increases (fluidity decreases) in compositions containing polycarbonate, SAN and a siloxane graft upon the inclusion of glass fibers.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

---

THOMAS ECKEL

Signed at Dormagen, this      day of                   , 2005.

Le A 34 668 - US

page 4 of 4